

## Safety & Environmental Enforcement, Interior

## § 250.432

| If you encounter the following situation:   | Then you must . . .   |
|---|---|
| (b) Need to increase casing setting depths more than 100 feet true vertical depth (TVD) from the approved APD due to conditions encountered during drilling operations, | Submit those changes to the District Manager for approval.  |
| (c) Have indication of inadequate cement job (such as, but not limited to, lost returns, cement channeling, gas cut mud, or failure of equipment),                      | (1) Run a temperature survey; (2) Run a cement evaluation log; or (3) Use a combination of these techniques.  |
| (d) Inadequate cement job,  | Re-cement or take other remedial actions as approved by the District Manager.   |
| (e) Primary cement job that did not isolate abnormal pressure intervals,  | Isolate those intervals from normal pressures by squeeze cementing before you complete; suspend operations; or abandon the well, whichever occurs first.  |
| (f) Decide to produce a well that was not originally contemplated for production,   | Have at least two cemented casing strings (does not include liners) in the well. Note: All producing wells must have at least two cemented casing strings.  |
| (g) Want to drill a well without setting conductor casing,  | Submit geologic data and information to the District Manager that demonstrates the absence of shallow hydrocarbons or hazards. This information must include logging and drilling fluid-monitoring from wells previously drilled within 500 feet of the proposed well path down to the next casing point. |
| (h) Need to use less than required cement for the surface casing during floating drilling operations to provide protection from burst and collapse pressures,           | Submit information to the District Manager that demonstrates the use of less cement is necessary.   |
| (i) Cement across a permafrost zone,  | Use cement that sets before it freezes and has a low heat of hydration.   |
| (j) Leave the annulus opposite a permafrost zone uncemented,  | Fill the annulus with a liquid that has a freezing point below the minimum permafrost temperature and minimizes opposite a corrosion.   |

[76 FR 64462, Oct. 18, 2011, as amended at 77 FR 50892, Aug. 22, 2012]

### DIVERTER SYSTEM REQUIREMENTS

#### § 250.430 When must I install a diverter system?

You must install a diverter system before you drill a conductor or surface hole. The diverter system consists of a diverter sealing element, diverter lines, and control systems. You must design, install, use, maintain, and test the diverter system to ensure proper diversion of gases, water, drilling fluid, and other materials away from facilities and personnel.

#### § 250.431 What are the diverter design and installation requirements?

You must design and install your diverter system to:

- (a) Use diverter spool outlets and diverter lines that have a nominal diameter of at least 10 inches for surface wellhead configurations and at least 12 inches for floating drilling operations;
- (b) Use dual diverter lines arranged to provide for downwind diversion capability;
- (c) Use at least two diverter control stations. One station must be on the drilling floor. The other station must be in a readily accessible location away from the drilling floor;

(d) Use only remote-controlled valves in the diverter lines. All valves in the diverter system must be full-opening. You may not install manual or butterfly valves in any part of the diverter system;

(e) Minimize the number of turns (only one 90-degree turn allowed for each line for bottom-founded drilling units) in the diverter lines, maximize the radius of curvature of turns, and target all right angles and sharp turns;

(f) Anchor and support the entire diverter system to prevent whipping and vibration; and

(g) Protect all diverter-control instruments and lines from possible damage by thrown or falling objects.

#### § 250.432 How do I obtain a departure to diverter design and installation requirements?

The table below describes possible departures from the diverter requirements and the conditions required for each departure. To obtain one of these departures, you must have discussed the departure in your APD and received approval from the District Manager.

| If you want a departure to:  | Then you must . . .  |
|--|--|
| (a) Use flexible hose for diverter lines instead of rigid pipe,  | Use flexible hose that has integral end couplings.   |
| (b) Use only one spool outlet for your diverter system,  | (1) Have branch lines that meet the minimum internal diameter requirements; and (2) Provide downwind diversion capability. |
| (c) Use a spool with an outlet with an internal diameter of less than 10 inches on a surface wellhead, | Use a spool that has dual outlets with an internal diameter of at least 8 inches.  |
| (d) Use a single diverter line for floating drilling operations on a dynamically positioned drillship, | Maintain an appropriate vessel heading to provide for downwind diversion.  |

**§ 250.433 What are the diverter actuation and testing requirements?**

When you install the diverter system, you must actuate the diverter sealing element, diverter valves, and diverter-control systems and control stations. You must also flow-test the vent lines.

(a) For drilling operations with a surface wellhead configuration, you must actuate the diverter system at least once every 24-hour period after the initial test. After you have nipped up on conductor casing, you must pressure-test the diverter-sealing element and diverter valves to a minimum of 200 psi. While the diverter is installed, you must conduct subsequent pressure tests within 7 days after the previous test.

(b) For floating drilling operations with a subsea BOP stack, you must actuate the diverter system within 7 days after the previous actuation.

(c) You must alternate actuations and tests between control stations.

**§ 250.434 What are the recordkeeping requirements for diverter actuations and tests?**

You must record the time, date, and results of all diverter actuations and tests in the driller's report. In addition, you must:

- (a) Record the diverter pressure test on a pressure chart;
- (b) Require your onsite representative to sign and date the pressure test chart;
- (c) Identify the control station used during the test or actuation;
- (d) Identify problems or irregularities observed during the testing or actuations and record actions taken to remedy the problems or irregularities; and
- (e) Retain all pressure charts and reports pertaining to the diverter tests

and actuations at the facility for the duration of drilling the well.

**BLOWOUT PREVENTER (BOP) SYSTEM REQUIREMENTS**

**§ 250.440 What are the general requirements for BOP systems and system components?**

You must design, install, maintain, test, and use the BOP system and system components to ensure well control. The working-pressure rating of each BOP component must exceed maximum anticipated surface pressures. The BOP system includes the BOP stack and associated BOP systems and equipment.

**§ 250.441 What are the requirements for a surface BOP stack?**

(a) When you drill with a surface BOP stack, you must install the BOP system before drilling below surface casing. The surface BOP stack must include at least four remote-controlled, hydraulically operated BOPs, consisting of an annular BOP, two BOPs equipped with pipe rams, and one BOP equipped with blind or blind-shear rams.

(b) Your surface BOP stack must include at least four remote-controlled, hydraulically operated BOPs consisting of an annular BOP, two BOPs equipped with pipe rams, and one BOP equipped with blind-shear rams. The blind-shear rams must be capable of shearing the drill pipe that is in the hole.

(c) You must install an accumulator system that provides 1.5 times the volume of fluid capacity necessary to close and hold closed all BOP components. The system must perform with a minimum pressure of 200 psi above the precharge pressure without assistance from a charging system. If you supply the accumulator regulators by rig air and do not have a secondary source of pneumatic supply, you must equip the regulators with manual overrides or